REMARKS

By way of the present amendment, claims 24 and 37 have been amended. Prior to the present amendment, claims 1 to 23, and 38 to 45 have been canceled. Accordingly, claims 24 to 37 remain pending in this application, with claims 24 and 37 being independent claims. Reconsideration is respectfully requested in light of the present amendment and the following remarks, which are fully responsive to the non-final Office Action.

I. Rejections Under 35 USC § 103(a)

Claims 24 to 37 are rejected as allegedly being unpatentable over U.S. Patent No. 5,503,613 ("Weinberger") in view of Reissued U.S. Patent No. Re. 34,421 ("Parker") and U.S. Patent No. 3,872,856 ("Clayton"). The Applicant respectfully traverses these rejections.

Independent claim 24, directed to a method for preventing restenosis of a lumen, includes, *inter alia*, the step of advancing an x-ray catheter through a lumen to a first location adjacent an intended site, wherein the x-ray catheter comprises an x-ray generating unit comprising an anode, a cathode, an insulator having an external surface, and a conductor coating on the insulator external surface, the anode and the cathode being coupled to the insulator to define a vacuum chamber.

Similarly, independent claim 37, directed to a method for providing x-ray radiation treatment, includes, *inter alia*, the step of advancing an x-ray catheter through a lumen to a first location adjacent an intended site, wherein the x-ray catheter comprises an x-ray generating unit comprising an anode, a cathode, an insulator having an external surface, and a conductor coating on the insulator external surface, the anode and the cathode being coupled to the insulator to define a vacuum chamber.

None of the cited prior art references discloses a method that utilizes a catheter having an x-ray generating unit that includes the features recited in claims 24 and 37. Neither Weinberger nor Clayton discloses of any type of x-ray generating unit. Parker, directed to an x-ray micro-tube and methods of using the same, discloses several x-ray micro-tubes, illustrated in FIGs. 8 to 11. All of the x-ray micro-tubes disclosed by Parker

include a glass tube in which a cathode and an anode are oppositely disposed. The glass tube inner surface, and interfaces between the tube and the cathode and anode, defines a vacuum chamber. However, none of the embodiments disclosed by Parker include an insulator that has a conductor coating on its exterior, and that defines a vacuum chamber.

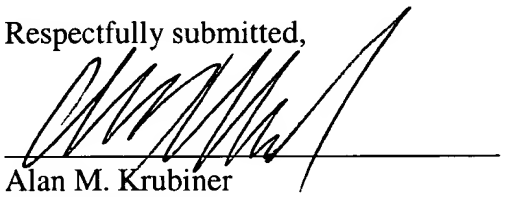
Perhaps the x-ray micro-tube described in Parker that is closest to the present invention is illustrated in FIG. 11. A glass tube 120 that defines a vacuum chamber is contained within a metal jacket 126. However, the metal jacket 126 does not coat the glass tube 120. Because each of the prior art references, alone or in combination, fails to teach or suggest at least the features of the independent claims, it is respectfully submitted that the rejections under 35 U.S.C. § 103(a) should be withdrawn.

In addition to the failure of the prior art to disclose each of the features set forth in the pending independent claims, it is submitted that a person of ordinary skill in the art of x-ray catheters would not consider Weinberger and Clayton to be non-analogous to the present invention. Consequently, the combination of Weinberger and Clayton with Parker is improper for the formulation of an obviousness rejection. Weinberger is directed to application of radioactive radiation to reduce proliferation of smooth muscle cells. When considering the type of x-ray generation unit to use for a catheter, one would not look to a radioactive radiation generating device such as that disclosed by Weinberger for guidance. Further, Clayton is also directed to radioactive radiation generation. Clayton merely mentions in one background passage that x-rays radiation has been used in the past for removal of cancerous tissue. This tangential information would provide no guidance whatsoever to a person considering the type of x-ray generating unit to use for a catheter. Because the Weinberger and Clayton references are improperly combined with Parker and applied against the present claims, it is respectfully submitted that the claims are not obvious in view of the combined references.

Conclusion

For the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at telephone (707) 543-5021.

Respectfully submitted,



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